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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,338	05/15/2006	Krishnareddy Guddadarangavvnahally	52956.1.1	1023
22859 7590 09/14/2010 INTELLECTUAL PROPERTY GROUP FREDRIKSON & BYRON, P.A. 200 SOUTH SIXTH STREET, SUITE 4000 MINNEAPOLIS, MN 55402				
EXAMINER CHEN, CATHERYNE				
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09/14/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/566,338

Applicant(s)

GUDDADARANGAVVNAHALY ET AL.

Examiner

CATHERINE CHEN

Art Unit

1655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4 and 9-18 is/are pending in the application.
- 4a) Of the above claim(s) 9-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-4, 15-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The Amendments filed on March 15, 2010 has been received and entered.

Currently, Claims 1, 3-4 and 9-18 are pending. Claims 1, 3-4 and 15-18 are examined on the merits. Claims 2 and 5-8 are canceled. Claims 9-14 are withdrawn.

Response to Arguments

Applicant's arguments, filed March 15, 2010, with respect to the rejection(s) of claim(s) 1, 3-4 and 15-18 under 35 U.S.C. 103(a) as obvious over Agnihotri et al. (1996, Indian J. Experimental Biology, 34, 712-715) and as evidenced by Li (1996, Malawai: Country Report to the FAO International Technical Conference on Plant Genetic Resource, Leipzig) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the following.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizobuchi et al. (JP 05161697 A1) and as evidenced by Voelker et al. (1967, J Association Official Analytical Chemists, 50: 852-856).

Mizobuchi et al. teaches plant essential oil from fruits of cinnamon extracted with hexane (Abstract). Fruit of cinnamon extracted with hexane would contain hexane. Ceylon cinnamon (*Cinnamomum zelanicum*) in trade practice is called "cinnamon" (Voelker et al., page 853, left column, paragraph 1).

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 18 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jayaprakasha et al. (previously

cited reference, 1997, *Flavour and Fragrance J*, 12: 331-333) and as evidenced by Baratta et al. (1998, *Flavour Frag J*, 13: 235-244).

Jayaprakasha et al. teaches fruits of *Cinnamomum zeylanicum* were coarsely powdered and distilled to yield volatile oil and dried and stored (page 331, Plant Material, Isolation of Volatile Components). Essential oil from fruits of *C. zeylanicum*, which contains trans-cinnamyl acetate as the major component (page 333, right column, last paragraph).

The claims are drawn to an antibacterial bioactive composition comprising organic solvent from powdered fruits of *Cinnamomum zeylanicum* as the active ingredient therein, within a product-by-process claim.

The cited reference teaches a composition consisting of (or consisting essentially of) an extract of the fruit of *Cinnamomum zeylanicum* as the active ingredient therein which appears to be identical to (and thus anticipate) the presently claimed fruit of *Cinnamomum zeylanicum* extract composition (including inherently comprising the instantly claimed antibacterial bioactive fraction of trans-cinnamyl acetate) since both were prepared using similar powdered fruits and the oils were dried as the concentration steps, and both demonstrate the same/similar activity with respect to antibacterial activity and has the chemical composition trans-cinnamyl acetate as the major oil from fruit (see Baratta et al., Abstract and Table 1). Consequently, the instantly claimed fruit of *Cinnamomum zeylanicum* extract composition appears to be anticipated by the cited reference.

In the alternative, even if the claimed fruit of *Cinnamomum zeylanicum* extract composition is not identical to the referenced fruit of *Cinnamomum zeylanicum* extract composition with regard to some unidentified characteristics, the differences between that which is disclosed and that which is claimed are considered to be so slight that the referenced fruit of *Cinnamomum zeylanicum* composition is likely to inherently possess the same characteristics of the claimed fruit of *Cinnamomum zeylanicum* composition particularly in view of the similar characteristics which they have been shown to share. Thus, the claimed fruit of *Cinnamomum zeylanicum* composition would have been obvious to those of ordinary skill in the art within the meaning of USC 103. Further, if not anticipated, the result-effective adjustment of particular conventional working conditions (e.g., forming a tablet or other commonly employed oral pharmaceutical form comprising a result-effective amount of the fruit of *Cinnamomum zeylanicum* extract beneficially taught by Jayaprakasha et al. therein) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan.

Accordingly, the claimed invention as a whole was at least *prima facie* obvious, if not anticipated by the reference, especially in the absence of sufficient, clear, and convincing evidence to the contrary.

Please note that the Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether the fruit of *Cinnamomum zeylanicum* extract within Applicant's fruit of *Cinnamomum zeylanicum* extract differ and, if so, to

what extent, from the levels within the fruit of *Cinnamomum zeylanicum* extract disclosed by the cited reference. Therefore, with the showing of the reference, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

Please also note that "the patentability of a product does not depend upon its method of production. If the product in [a] product-by-process claim is the same as or obvious from a product of the prior art, [then] the claim is unpatentable even though the prior [art] product was made by a different process." In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 218 USPQ 289, 292 (Fed. Cir. 1983).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3-4 and 15-18 are rejected under 35 U.S.C. 103(a) as obvious over Agnihotri et al. (1996, Indian J. Experimental Biology, 34, 712-715) in view of Li (1996, Malawai: Country Report to the FAO International Technical Conference on Plant Genetic Resource, Leipzig), Jayaprakasha et al. (previously cited reference, 1997, Flavour and Fragrance J, 12: 331-333), and Baratta et al. (1998, Flavour Frag J, 13: 235-244).

Agnihotri et al. teaches cinnamomum zeylanium extracted with hexane and tested for antibacterial properties using gram positive and gram negative bacteria (Abstract). Cinnamomum zeylanium was dried and powdered and mixed with hexane and kept on a rotary shaker for 48 hrs to obtain hexane extract, which was filtered and stored at 10 degree (page 712, right column, paragraph 3). The drying process inherently means the extract is dried, where the moisture content is between 5-6% (see Li, page 18, 3.3 Storage Facilities). Hexane has no moisture; therefore, adding hexane to extract does not introduce moisture into the powder. The claims are directed to a composition, the composition would intrinsically have antibacterial activity against *Bacillus cereus* in the range of 200-500 ppm.

However, fruit of *Cinnamomum zeylanicum* is not taught.

Jayaprakasha et al. teaches *Cinnamomum zeylanicum* fruit contains volatile oil that distinct from other parts of the plant (page 333, right column paragraph 1). Trans-

cinnamyl acetate is the major component of essential oil from fruit of *C. zeylanicum* (page 333, right column, last paragraph).

Baratta et al. teaches oil of cinnamon inhibits the growth of all bacterial strains tested (page 237, right column, paragraph 1). The trans-cinnamyl acetate is most abundant in cinnamon (Table 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use fruit of *Cinnamomum zeylanicum* because *Cinnamomum zeylanicum* fruit contains antibacterial chemical, trans-cinnamyl acetate (see Baratta et al. and Agnihotri et al.). One would have been motivated to make extracts from fruits as taught by Jayaprakasha et al. for the expected benefit of harvesting fruits of *Cinnamomum zeylanicum* which has high concentration of trans-cinnamyl acetate. Absent evidence to the contrary, there would have been a reasonable expectation of success in making the claimed invention from the combined teachings of the cited references.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3-4, and 15-18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 6, and 7-8 of U.S. Patent No. 7431958 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because Applicant claims a composition of powdered fruit *Cinnamomum zelanicum* extracted with organic solvent, such as hexane, which can be made by the process as taught by the US 7431958 B2.

Conclusion

No Claim is allowed.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CATHERYNE CHEN whose telephone number is (571)272-9947. The examiner can normally be reached on Monday to Friday, 9-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Catheryne Chen
Examiner Art Unit 1655

/Michele Flood/

Primary Examiner, Art Unit 1655